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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
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10/726,522

12/04/2003

Kou Yamamoto

XA-10008

7198

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7590

12/12/2005

MILES & STOCKBRIDGE PC  
1751 PINNACLE DRIVE  
SUITE 500  
MCLEAN, VA 22102-3833

EXAMINER

BROWN, DREW J

ART UNIT

PAPER NUMBER

3616

DATE MAILED: 12/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                               |                                 |  |
|------------------------------|-------------------------------|---------------------------------|--|
| <b>Office Action Summary</b> | Application No.<br>10/726,522 | Applicant(s)<br>YAMAMOTO ET AL. |  |
|                              | Examiner<br>Drew J. Brown     | Art Unit<br>3616                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/19/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Objections*

1. Claims 1 and 5 are objected to because of the following informalities: In line 17 of claim 1 and line 18 of claim 5, "presses" should be changed to --press--. Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2588338 in view of Ikeda et al. (U.S. Pat. No. 6,467,807 B2).

JP 2588338 discloses a steering column apparatus comprising a steering shaft (3) having its rear end to which a steering wheel (inherent) is secured. A steering column supports rotatably the steering shaft and is adjustable of its length in the axial directions together with the steering shaft. A telescopic position fixing means (Figure 2) fixes the steering column to a desired length, wherein the steering column is constructed of an outer column (20) fixed on a car body side and an inner column (22) slidably fitted in the outer column (Figure 1). The telescopic position fixing means is constructed of a lock housing (23) formed on the outer column (Figure 2), and first (25) and second (27) press blocks are slidably held by the lock housing and move forwards

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and backwards in a way that embraces an outer peripheral surface of the inner column (Figure 2). Press block driving means (35) bring the first and second press blocks into a press-contact with the inner column. Also, a fastening lever (36) is used for rotating the press lock driving means, and an interval regulating means (34) regulates an interval between the driving means and the first press block.

JP 2588338 does not disclose that the press block driving means includes a fixed cam provided on the second press block, and a rotatable cam facing the fixed cam, where the lever rotates the rotatable cam, and the interval regulating means regulates an interval between the rotatable cam and the first press block.

However, Ikeda et al. does disclose a fixed cam (18) and a rotatable cam (17) facing the fixed cam, where a lever (16) rotates the rotatable cam, and an interval regulating means (14) regulates an interval between the rotatable cam and the first press block (column 4, lines 55-67 and column 5, lines 1-2).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify JP 2588338 in view of the teachings of Ikeda et al. to have a cam lock mechanism in order to create a smoother clamping of the telescopic position fixing means and to also control the force necessary to clamp the fixing means.

With respect to claim 2, the combination of JP 2588338 discloses the claimed invention as discussed above but does not disclose that the press block driving means includes a biasing means for biasing the first press block and second press block in such a direction as to be separated away from each other.

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However, Figure 4 of JP 2588338 does disclose a biasing means (39) for biasing the first press block and second press block in such a direction as to be separated away from each other.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of JP 2588338 in view of Figure 4 of JP 2588338 to have a biasing means between the first and second press blocks in order to further control the force needed to clamp and unclamp the telescopic position fixing means.

With respect to claim 3, Ikeda et al. discloses that the fixed cam is made integral with the second press block. When manufacturing and assembling the cam lock mechanism, the fixed cam is connected to the second press block and then fastened to it via a protrusion (18a) so the fixed cam is incapable of rotation (column 4, lines 66-67 and column 5, lines 1-2).

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2588338 in view of Ikeda et al., and further in view of Kim et al. (U.S. Pat. No. 5,979,265).

The combination of JP 2588338 discloses the claimed invention as discussed above but does not disclose that the press block driving means further includes an inclined guide member formed in the lock housing for assisting at least one of the first and second press blocks to descend or ascend in such a direction as to be separated away from the inner column on such an occasion that the first and second press blocks are separated away from each other.

However, Kim et al. does disclose an inclined guide member (700 in Figure 3). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of JP 2588338 in view of the teachings of Kim et al. to include an inclined guide member formed in the lock housing to assist the first and second

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press blocks in order to decrease the force necessary to unclamp the telescopic position fixing means by allowing the press blocks to slide down the guide due to gravity.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2588338 in view of Kim et al.

JP 2588338 discloses the claimed invention as discussed above, and further discloses a fastening bolt (31) having its one end (right end) fixed to the first press block (via nut 34) and penetrating the second press block, and a nut (35) screwed onto a threaded portion formed at the other end of the fastening bolt and having its side surface abutting on the second press block. JP 2588338 does not disclose that the press block driving means further includes an inclined guide member formed in the lock housing for assisting at least one of the first and second press blocks to descend or ascend in such a direction as to be separated away from the inner column on such an occasion that the first and second press blocks are separated away from each other.

However, Kim et al. does disclose an inclined guide member (700 in Figure 3). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of JP 2588338 in view of the teachings of Kim et al. to include an inclined guide member formed in the lock housing to assist the first and second press blocks in order to decrease the force necessary to unclamp the telescopic position fixing means by allowing the press blocks to slide down the guide due to gravity.

### *Conclusion*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fever et al., Oxley et al., Matsumoto et al., Fujiu, Olgren et al., Anspaugh et al.,

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Mitchell et al., Yamamura et al., Kinoshita et al., Bohlen et al., Venable, Budzik, Jr. et al., Higashino, and Shibayama disclose similar telescopic position fixing means.

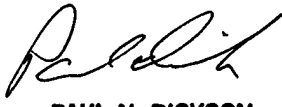
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Drew J. Brown whose telephone number is 571-272-1362. The examiner can normally be reached on Monday-Thursday from 7 a.m. to 4 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul N. Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Drew J Brown  
Examiner  
Art Unit 3616

DJB

 12/9/05  
PAUL N. DICKSON  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600